Prior to the establishment of the Federal Reserve, America's money supply was controlled by the First Bank of the United States, established in 1791 and then later the Second Bank of the United States, established in 1816. The First Bank of the United States was established by Congress at the request of Treasury Secretary Alexander Hamilton and was the largest corporation in the country, but largely opposed by rural Americans who were uncomfortable with such a powerful entity. When the bank's charter expired in 1811 (after 20 years), Congress voted against a new one. In 1816, however, politicians developed renewed fervor for the creation of a central bank, and this is when Congress decided to charter the Second Bank of the United States. But when Andrew Jackson became President in 1828, he vowed to destroy it. He appealed to populist sentiments by criticizing the bank's banker-controlled power, and by 1836, when the bank's charter expired, Congress refused to renew it. Andrew Jackson would manage to pay off all of America's interest bearing debt by selling off government-owned land, but left the country without a uniform national currency. After the Second National Bank expired, the nation's money supply consisted of private bank notes issued by state-charted banks, and were redeemable for gold or silver. Such form of currency system was highly chaotic and by the 1860s, there were 8000 different private bank notes circulating in the US. In some cases, banks would not accept notes issued by banks unknown to them. Ultimately, the rising volume of check transactions led to the creation of the New York Clearinghouse Association in 1853, which allowed banks to exchange checks and settle accounts. These banks also offered demand deposits, which are simply bank deposits that can be withdrawn at any time without advanced notice.

During the American Civil War, the National Banking Act of 1863 was passed. This established nationally chartered banks which issued notes backed by government-owned securities, and also provided the country with a national currency, allowing the government to finance the Union Army during the American Civil War. These paper notes were called greenbacks because of the green print on the back, and were printed in two forms: Demand Notes and United States Notes. In July of 1861, Congress authorized the printing of 50,000,000

in Demand Notes for the purpose of financing the Civil War. These notes could be redeemed for gold or specie; specie is money in the form of coin. The United States Notes, on the other hand, were not backed by anything, but considered equivalent to the Demand Notes. Because of the threat of a severe debt crisis, Congress was urged to pass the "Legal Tender Act" in 1862 which authorized the printing of 150,000,000 in United States Notes. Meanwhile, the Demand Notes were gradually taken out of circulation by mid-1863. The value of the United States Note in relation to gold would fluctuate until after the Civil War when it rose to become on par with gold. When this happened, the United States Notes became convertible into gold. Yet despite the currency stability provided by the National Banking Act of 1863, bank runs and financial panics continued to negatively affect the economy. In 1893, a banking panic triggered a devastating depression in which 575 banks failed or suspended their operations. It was common for banks to suspend operations in order to avoid becoming insolvent by having to liquidate their assets in order to meet the withdrawal demands of depositors. Subsequently, the economy didn't stabilize until J.P. Morgan intervened.

The Bank Panic of 1907 is what led to the creation of the Federal Reserve System and took place between Oct 14, 1907 – Nov 6, 1907. It was triggered by a stock manipulation scheme intended to force short sellers to cover their positions by buying back their borrowed shares. F Augustus Heinz, a mining magnate who owned stock in United Copper Company believed that short sellers were driving down the price of the stock. Together, he, his brother--broker Otto Heinze, and Wall Street banker Charles W. Morse devised a strategy to force the short sellers to cover their positions and thus create buying pressure that would drive the price of the stock higher. The plan was to aggressively purchase shares of United Copper Company so that the short sellers would have no choice but to buy back their borrowed shares from the Heinzes, who could simply name their price. However, the short sellers were able to find cheaper United Copper Company shares from other sources. This drove the price of the stock down, quickly causing the share price of United Copper Company to collapse. The State Savings bank of Butte, Montana announced its insolvency as they held large stock positions in United Copper

Company, which served as collateral against some of their lending. They were also a correspondent bank with the Mercantile National Bank, of which F Augustus Heinze was President. The now tainted reputation of Heinze and his associates as a result of the failed scheme led to a massive bank run in which depositors rushed to withdraw money from Mercantile and other Heinze-associated banks. The panic spread to all financial institutions tied to anyone who was involved in the manipulation scheme. The panic was later brought under control by financier JP Morgan, who put up much of his own money to stabilize the banking system. He also advised other bankers to do the same. The panic underscored the ineffectiveness of the independent Treasury system, which at the time managed the nation's money supply. An investigation of the crisis led to the creation of the Federal Reserve system. As this bank panic led to growing demands for banking reforms, a consensus for central banking authority and elastic currency grew amongst most Americans. The Aldrich-Vreeland Act was passed in 1908 in response to the panic of 1907 and provided emergency currency issuance during financial crises. It also created the national Monetary Commission to research solutions to the nation's banking problems. The commission developed a banker-controlled plan, but this was largely contested by progressives who wanted a bank under public control, not banker control. However, the election of Woodrow Wilson for President would set the stage for a decentralized central bank, as he would sign the Federal Reserve Act into law in late 1913.

The trade-off that followed the establishment of the Federal Reserve was the rise of inflation. Before the Federal Reserve System, the US economy was more deflationary. In the 1800s, deflation occurred between 1817 and 1860 & between 1865 and 1900. From 1800 to 1940, the cost of living had risen on average only 0.2% a year. It actually declined on 69 occasions. The average annual inflation between 1790 and 1914 was only 0.4%. In contrast, the average annual inflation between 1914 and 2021 was 3.24%. After 1913, deflation was rare, only occurring between 1930 – 1933 and between 2007-2009. The rise of inflation after 1913 can be attributed to both the elimination of the gold standard and the monetary operations of the Federal Reserve.

From 1929 to 1932, the economy tumbled in what was the beginning of the Great Depression. The stock market crash began on October 24th 1929, Black Thursday, and continued until Tuesday of the next week, October 29th 1929, known as Black Tuesday. The 1920s was marked by economic prosperity, and it was believed that the market would rise forever. In March of 1929, however, the Federal Reserve warned of excessive speculation just before a brief slide. Measures taken to curb speculation could be factored in as catalyst for the crash, since speculation played a large role in the market expansion throughout the 1920s. Banks putting deposits in the stock market was considered as another reason for the crash. The economic downturn from 1930 to 1933 was the first time the US entered a period of deflation after the creation of the Federal Reserve in 1913. It would not encounter deflation again until the 2007-2008 financial crisis.

The rise of inflation has reignited debate on whether or not the Federal Reserve should remain. While the Federal Reserve has certainly been instrumental in reducing significantly the prospect of bank runs, they have nevertheless come under intense scrutiny regarding their ability to curtail inflation. The Federal Reserve runs the printing press for dollar bills. They don't print the actual paper currency, but they determine how much is to be printed each year. The actual job of printing paper currency belongs to the Treasury Department Bureau of Engraving and Printing(BEP). (Coins are produced by the U.S. Mint). Basically, the Federal Reserve submits an order to the BEP, who then prints the money and sends it to the Federal Reserve. The Federal Reserve then distributes it to its 28 cash offices, who in turn distribute the money to 8400 banks and credit unions across the country. Those banks and credit unions hold the money as reserves, and the amount they are to lend out is determined by the Federal Reserve Board of Governors, which is comprised of 7 members, all nominated by the President and confirmed by the Senate. The 7 members of the Federal Reserve Board of Governors all serve on the Federal Open Market Committee. All except the Chair and Vice Chair serve 14 year terms. The Chair and Vice Chair only serve 4 year terms. For the 2020 fiscal year, the Federal Reserve ordered 5.2 billion US currency notes valued at 146 billion. So when

economic discourse mentions the Fed printing money, this is what they mean. These days, the American money supply is digitally credited or debited to the major banks, and it is not until after the banks loan this money out to the public that the money gets printed. The amount determined to be printed is discussed among the Federal Open Market Committee(FOMC) and its associated economic advisers. The FOMC is a committee within the Federal Reserve and is their monetary policy making body. They have 8 regularly scheduled meetings throughout the year where they discuss monetary policy, interest rates, and economic conditions. The Fed raises interest rates by influencing the Federal Funds rate, which are the reserves held by banks at one of the 12 regional Federal Reserve banks. At the meetings of the FOMC, the Federal Reserve sets a target for the Federal Funds rate, which defines the interest rate at which commercial banks borrow and lend their excess reserves to each other. The Federal Reserve gets banks to raise or lower their interest rates by either increasing the amount required to be held in reserve or reducing the amount required. When the Federal Reserve increases the amount required to be held in reserve, banks become limited in the amount they can lend out. When the Fed decreases the amount required to be held in reserve, the banks can then lend out more. The Federal Reserve can also influence interest rates by changing the interest rate the Federal Reserve bank pays on reserve balances. This sets an upper limit on the fed funds rate since banks will never opt to borrow from another bank at a higher interest rate than what they would get if they simply borrow directly from the Federal Reserve bank. When the economy does not respond to interest rate cuts, the Federal Reserve turns to Quantitative Easing(QE) through its Open Market Operations in order to help stimulate the economy. They began buying up Government Debt and Mortgage backed securities, reducing the supply of these in the market. By purchasing Mortgage backed securities, the Federal Reserve stabilizes the real estate industry, preventing job losses and increasing investor willingness to buy new mortgages. When the Federal Reserve buys US treasury securities, it raises the money supply and increases the volume of bank reserves. Reducing the pace of these QE activities is called tapering. Tapering can slowdown the

economy without a corresponding interest rate hike of short term loans.

In 1973 and 1974, the global economy was in a recession, due in large part to a steel crisis, the 1973 oil crisis, and the fall of the Bretton Woods system. More nations were becoming industrialized, and this triggered more competition in the metals industry. In 1973, however, OPEC announced an embargo to all nations supporting Israel during the Yom Kippur war. This to the detriment of those nations which were heavily dependent on oil. Meanwhile, the rise of dollar printing would become ignited when in 1971, the US pulled out of the Bretton Woods accord where the US dollar was pegged to the price of gold at 35 dollars an ounce, with all other currencies pegged to the dollar.

In July of 1944, a new global economic order was established in Bretton Woods, New Hampshire. Delegates from 44 nations devised an international monetary system known as the Bretton Woods system in order to circumvent barriers that prevented nations from fully cooperating with each other on the international scene. After World War I, the classic gold standard had been abandoned by much of the world, which led to widespread devaluation of national currencies for the sake of gaining trade advantages. Nations were also imposing trade restrictions and protectionist policies, both of which exacerbated the Great Depression. At Bretton Woods, those in attendance formulated an international monetary system that would discourage currency devaluations and at the same time foster economic growth. The primary flow of ideas concerning this new economic system came from John Maynard Keynes, who was an adviser to the British Treasury, and Harry Dexter White, the chief economist at the Treasury Department. Keynes proposed the creation of a large global central bank that would intervene on the global economy when imbalances occurred. This bank would be called the Clearing Union and it would issue a global currency called the "bancor", which would be used to correct international imbalances. Each nation would receive a line of credit to help offset the problems of becoming a net consumer, which is basically the result of a nation importing more goods than it exports. This line of credit was also meant to discourage nations from running a surplus,

that is, exporting more goods than it imports since doing so would require canceling excess bancor to the Clearing Union. White, on the other hand, proposed that the new monetary system maintain a Stabilization Fund that would be funded with a number of national currencies and gold worth 5 million which would limit the amount of reserve credit. The plan that was chosen followed along the lines of White's proposal. However, Keynes concern about nations running surpluses was accounted for with the idea that a clause can be added which would permit the fund to ration the currency of the nation that was running the surplus. It was also decided that the total resources of the fund would be increased from 5 million to 8.5 million. The 730 delegates at Bretton Woods agreed to establish 2 institutions. The first was "The International Monetary Fund"(IMF), which would watch over exchange rates and lend reserve currencies to nations running balance of payment deficits as a result of importing more than they are exporting. The second was the World Bank Group, which would be responsible for giving financial assistance both to nations rebuilding after World War II, and to nations that were looking to develop economically. The IMF was formalized in 1945, as member countries agreed to keep their currencies pegged to the dollar, while the dollar would be pegged to gold at 35 dollars an ounce. By 1958, this system would become fully functional. In 1969, the IMF created its own reserve asset called the Special Drawing Rights (SDR), which is backed by a basket of currencies that figure prominently in international transactions. The IMF's financial arrangements with member countries are denominated in SDR, and each member country is allocated a portion of SDR based on economic and currency factors(nations with stronger economies tend to have higher SDR quotas and allocation). By exchanging the SDR with other member nations for hard currencies, nations are better able pay off their debts. The IMF also issues hard currency loans to nations experiencing financial difficulty. After the IMF was initially created, the United States was to be responsible for keeping the price of gold fixed and adjusting the supply of dollars to help foster confidence in gold convertibility. The Bretton Woods system held steady until US balance-of-payments deficits created an imbalance in which foreign-held dollars would exceed the amount of US gold stock.

The dollar had been freely exchangeable into gold, but when the US pulled out of the accord in 1971, convertibility into gold was no longer tenable since America's stores of gold had depleted over time. Thus the dollar became a fiat currency backed by nothing, that is, until the Petrodollar Agreement was established by President Richard Nixon and Secretary of State Henry Kissinger in 1973, as the collapse of the gold standard triggered a worldwide bear market. The basic gist of the agreement was that the US would agree to defend Saudi Arabia militarily in return for all oil becoming denominated in US Dollars. Another option of this arrangement would be the purchase of US Treasury Securities with the extra profits from oil sales. Shortly thereafter, an accordance was established in 1975, as Saudi Arabia and all OPEC nations would agree to sell their oil for US Dollars and also hold their oil proceeds in US Treasury securities. The US would in exchange agree to provide military support and security. The result was that the US dollar became the world's reserve currency since much of the world's energy exchange had be transacted with US Dollars. This exponentially increased global demand for US Dollars since all foreign governments that relied on oil imports from the middle east had to hold U.S. Dollars in order to purchase it. Essentially the US Dollar had simply transitioned from the gold standard to the oil standard. And this increased demand for U.S Dollars gave the US more leg room to print higher amounts of money before dangerous levels of inflation could ever set in. The main points of the agreement: The Saudis would sell their oil in US Dollars only and invest the surplus profits in US Treasury securities, while the US would agree to assure Saudi Arabia's security with military support.

The standard outlook of intervention is that when inflation is high, the Federal Reserve can normally raise interest rates to slow down the economy. When inflation is low, the Federal Reserve can typically lower rates to speed up the economy. An example of this being applied in real time is when Paul Volcker, the twelfth Chairman of the Board of Governors of the Federal Reserve System, raised interest rates significantly in 1980 in order to bring the down the Great Inflation that occurred throughout the decade of the 1970s. It is likely that the Great Inflation had come about both as a result of the

collapse of Bretton Woods system and as a result of the PetroDollar agreement established in 1973, allowing the US to print more cash due to the higher global demand for U.S. Dollars but without any real way to account for the monetary aggregates that are responsible for the financial stability of a nation's monetary system. Money circulation in relation to money held in reserve was hard to keep track of throughout much of the 1970s, but Paul Volker insisted that the FOMC focus on strategies to deal with the growth of monetary aggregates in order to help bring down inflation. Volker would thus raise interest rates to 20% in March of 1980, before lowering it in June. As inflation subsequently rose again, Volcker hiked interest rates back to 20% in December of 1980 and left it above 16% until of May of 1981. Known as the Volcker Shock, this strategy worked and ended the Great Inflation. While this is a simple methodology, it does not eliminate every cause for inflation. While the Federal Reserve can increase or decrease the money supply by raising or lowering the reserve requirements for banks, they still have no control over the price setting by producers of goods and services. Those who sell goods and services can raise prices in response to money tightening implementations and in such a manner that would force policy makers to increase the money supply, further driving inflation. After the 2008 financial crisis, in which the Federal Reserve pumped billions of dollars into investment firms that were on the verge of collapse, the notion of economics took on a considerable change, where money supply became defined in terms of both the amount of it in circulation and the amount of it that could be printed. This is a revolting prospect because now dealers may be less perturbed by fiscal policies aimed at tightening the money supply and reducing inflation. This in itself conjures a reality in which inflation becomes hyperinflation and reaches a point where it will not respond to monetary policy implementations, seeing that in light of the PetroDollar agreement of 1973, producers would insist that the US Treasury Department print more money to keep up with the price of goods. This level of hyperinflation could only be resolved by an overhaul of the current system. Re-institution of the gold standard thus becomes the only solution to curbing inflation. Unless, the Federal Reserve can prove to the economy that simply printing more

money is not feasible, even with a backdrop of continuous global demand. This would require another 2008-like financial crisis scenario where firms would be allowed to collapse, as opposed to receiving large sums of bailout funds. The result is the dollar becomes perceived to have more value and as a consequence, inflation comes under control.

In 2008, the stock market experienced one of its worst years, dropping 33%. The Housing bubble and debt bubble were considered major triggers for the 2008 crash. During the housing bubble, investment firms were packaging mortgage loans into securities(Mortgage-backed securities- MBS), and then selling them off to investors, allowing the firm to keep them off their financial statements. Rating agencies rated the MBS, which served as a benchmark for potential buyers. The investors then started using credit default swaps, in which an insurance company would guarantee to cover the any potential losses from the MBS in exchange for a premium. This proved profitable for many investors and insurance companies. However, when investment firms started having trouble finding buyers for their MBS products, along with rating agencies downgrading them as the credit crisis worsened, investment firms were left having to hold large positions in MBS. This is what happened to Bear Sterns in April of 2008 and then Lehman brothers in September of 2008, as both had to declare bankruptcy. AIG, the main underwriter of credit default swaps was bailed out by the Federal Reserve, since the company was designated as Too Big To Fail. AIG provided protections worth half a trillion dollars, 300 billion to banks in the US and Europe. Failure of AIG would have had global implications.

In retrospect, the United States had lived up to their agreement with OPEC, when in 1989, tension arose between Iraq and Kuwait. Both of these nations are original OPEC member countries, but Iraq accused Kuwait of producing more oil than which was required by the OPEC quota at the time, causing oil prices to drop, which in turn was hurting Iraq's economy and their ability to pay off debts accrued during the Iran-Iraq war from 1980-1988. Iraqi President Saddam Hussein had also accused Kuwait of slant drilling into Iraq's Rumalia oil field, which compelled Saddam to declare war and embark upon

an invasion of the country. Iraq's conquest of Kuwait led to the 1991 Gulf War in which a coalition led by the United States intervened and repelled the Iraqi forces from Kuwait, and from further advancing into Saudi Arabia, which was the main concern for the US since Saudi Arabia exports 15% of the world's crude oil reserves—the highest of any nation. There was fear that after Iraq's occupation of Kuwait, Saddam would target Saudi Arabia's oil fields. This defense of Saudi Arabia was main point of the 1973 PetroDollar agreement—Saudi Arabia sell oil for USD and in return the US protect them militarily. However, after the year 2000, a number of OPEC nations decided to stop selling their oil for US Dollars. Iraq switched to selling their oil for Euros in the early 2000s. Shortly thereafter, the US invaded Iraq in 2003 without pretext. In 2011, Libya threatened to sell their oil for gold, before Qaddafi, Libya's President at that time, would be ousted and killed via a US-backed coup. In 2012, Iran stopped trading their oil for US dollars, and in 2018, Venezuela followed suit and also decided to stop selling their oil for US Dollars. Both nations were slapped with devastating sanctions that ultimately crippled their economies. Saudi Arabia is now the last line of defense for US Dollar hegemony and the economic expansion that followed the elimination of the gold standard. But in recent years, the United States has been enveloped within a long-standing disastrous foreign policy approach which had no qualms about giving assurances to militant forces or separatist movements in foreign countries, before abandoning them to the mercy of defeat, which oftentimes devastated the entire country. Such was the case in Vietnam, Syria, and Libya. And now NATO expansion eastward at the behest of the US for the sake of provoking Russia, along with the US's unkept assurances to Ukraine amid a massive Russian invasion of the country has given way to a growing lack of trust in US foreign policy. This will eventually come to a head with regards to US/Saudi relations, which is a critical alliance with systemic implications for the US.

And as of 2021, relations between Saudi Arabia and the United States have become strained. Washington D.C. has opted to take a hardline stance against the Saudi Crown Prince and threatened to prosecute him over the killing of Jamal Khashoggi, a Saudi-American journalist who was threatening to reveal damning information about

Saudi Arabia's war crimes in Yemen. The US President had also vowed to cut US involvement in Yemen, and at the same time continue to ignore the Yemen issue in nuclear talks with Iran. Yemen is a central issue for Saudi Arabia's security due to the fact that the Iran-backed Houthi militant group has used drones supplied to them by Iran to attack Saudi oil facilities. The US's backstep on these issues could lead to Saudi Arabia cutting ties with the US, and refusing to sell their oil for US Dollars. If this is the beginning of a strong rift between the US and Saudi Arabia, it will have an enormous negative impact on the US economy. This is also something that could send gold through the roof. Saudi Arabia has so much clout that it was once classified how Saudi Arabia was abusing their position with the US, helping Saudis accused of crimes in the US evade the US Judicial process by extraditing them back to Saudi Arabia. These crimes included manslaughter, child pornography, and rape. Many don't realize that if Saudi doesn't sell their oil for US Dollars, there would be no global demand for US dollars, and hence there would be no way the US treasury could continue to print the infinite amounts of currency they are currently printing. This current discord is a direct result of Washington D.C.'s combative foreign policy stance since the 2020 US presidential election. The US-Saudi alliance is a critical alliance and the US may need to hope that the Saudis are not planning to look elsewhere for military assurances. Especially with Germany now both re-militarizing in response to the Russian invasion of Ukraine, and also seeking alternative sources of oil… now that Germany's dependence on oil from Russia may be unsustainable as Russia becomes isolated from the international community. With Germany's economic situation at stake, they may look to compete with the US for mid-east influence by using diplomatic backchannels to set up oil deals that could be favorable for the Euro and the German economy, and of which would undercut US interests and their economic security. Now that the increased production of arms and innovation could provide Germany with tremendous bargaining power, Saudi Arabia may be tempted to seek out more assertive military assurances from other nations besides the US. As Germany becomes further alienated from Russia diplomatically, it may correspond to a much easier decision on their part to agree to defend Saudi Arabia

militarily, and that would include getting involved in the Yemen Crisis. Russia in recent years has tried to expand their influence in the middle east, but their ties to an allied consortium of Shiite nations like Iran and Syria made it impossible for Russia to provide Saudi Arabia with the security guarantees that it needs, if such was in fact on their agenda. The most Russia could offer in their attempt to branch out diplomatically from this consortium was allowing Israel to have unfettered access to Syrian airspace, so that Israel could conduct airstrikes on Iran bases in Syria, bases which are used to channel arms and other supplies to Iranian proxies in Yemen, Lebanon, and the Gaza Strip. These diplomatic limitations for Russia leaves Germany as the next best option for Saudi Arabia's security.

Because of this possibility, the Federal Reserve must prepare in advance a contingency plan in the likely event of US Dollar collapse. Because as of now in 2022, there are 4 major factors that support the idea of such a scenario arising in the near future. 1. German military buildup and isolation from Russia and their need to secure energy imports and deals from the middle east to make up for the economic fall back. 2. Reckless rhetoric towards Saudi officials by the current 2022 US administration 3. The Federal Reserve's slow response to rising inflation. 4. The world's slow transition to alternative sources of energy.

Solar and Wind energy would certainly reduce the world's reliance on petroleum products as far as electricity generation is concerned. Transportation, however, accounts for 71% of US petroleum consumption, and for this reason, the US is still a ways away from long distance electric vehicles or vehicles that could run on 100% bio-fuels. And because of this, one can not argue with certainty that a global shift away from the reliance on oil is underway. At the moment, there are a few vehicles that can run on 10% ethanol 90% gasoline, or 20% bio-diesel 80% petroleum diesel. The use of biomass/bio-diesel/bio-fuels for transportation is still being studied and some researchers are concerned about how it could disrupt food distribution. Russia is certainly a case study; how can grain/wheat be converted into ethanol when the west is facing grain shortages because of the war in Ukraine? And what about how bio-diesel will affect animal life, seeing that much of it is extracted from

animal fats. Sure, one can advise that it only be extracted from dead animals, but that will likely not be the case everywhere. Profiteers will have no problem resorting to killing more and more animals just for the sake of attaining greater access to the bio-diesel market. Combine that with the fact that most humans are still carnivores. This literally gives way to a greater demand for dead animals, a prospect that animal rights groups will protest en masse.

In both cases of bio-diesel and ethanol fuels, we have a situation where its production is cutting into food availability. Combine that with the fact that humans still have an affinity for both starting wars and instigating them. So alot of other factors which are still embedded into human society has to change before the world could ever consider a full transition to alternative sources of fuel. Due to Russia's invasion of Ukraine in February of 2022, worldwide sanctions have been imposed on Russia. These have caused inflation in Russia to rise to nearly 10%, and many analyst are forecasting it will surpass 20% by the end of March 2022 as the Russian currency, the Ruble, continues to collapse. Russia relies on imported goods such as cars, household appliances, televisions and smartphones, but multiple sanctions levied by the west against Russia has effectuated massive price increases among those products. The price of new cars rose 15%. Russia is also worried about how a reliance on imports for its agricultural industry, such as potato seeds will affect the economic situation. In response to the rising inflation and as a measure to stabilize prices, Russia's Central Bank has raised interest rates to 20%. According to the BBC, the sanctions applied against Russia for invading Ukraine in 2022 are as follows: The United States banned its oil and gas imports from Russia. The UK said they would gradually phase out their Russian oil imports by 2030. And Germany and the EU pledged to reduce their reliance on Russian oil by seeking alternative sources of energy before 2030. The west has also frozen Russia's foreign holdings of dollars and euros, and restricted banks from doing business with Russia's central bank. Some of Russia's banks are being restricted from the SWIFT banking system, which will prevent them from conducting international transactions. This would also delay any accounts receivable owed to Russia for its oil and gas exports. The UK has frozen the assets of all Russian banks, and

restricted their access to the UK financial system. The result is that Russia would not be able to raise funds or borrow money within the UK. A number of goods have been restricted from being sent to Russia, while the UK, US, EU, and Canada have banned Russian airlines from its airspace. Assets belonging to Russian president Vladimir Putin has been frozen as well. Russia in response has banned much of their exports to the west, exports which consist of various products, such as telecoms, medical, vehicle, agricultural, electrical equipment and timber. Russia has also stopped making interest payments to foreign investors holding Russian government bonds, and they also squeezed the liquidity of stocks and bonds held by foreign investors. In light of these developments, one can see how the sanctions will have a detrimental impact on western Europe. Not only in terms of acquiring adequate energy supplies, which might no longer be provided by Russia, but also in terms of food production. Russia and Ukraine account for a third of the world's wheat/grain and barley exports, but now with these sanctions levied upon Russia by the west, along with Russia retaliating by stopping its wheat/grain and fertilizer exports, much of the world that is dependent on such food supplies will have to face the prospect of significant food shortages, and at the same time deal with the impact of how fertilizer shortages will disrupt the very sensitive farming protocols, which could keep crop yields very low. Places like Egypt, Tunisia, and Lebanon are dependent on grain/wheat imported from Russia. Everything considered, Ukraine and Russia are basically world powers in the global food supply industry.

These sanctions against Russia present a catch 22. In one sense, Russia is cut off from the financial sector in the west, but at the same time, they will be able to accrue a surplus inventory from oil and grain production. This leaves the likelihood that Russia will become a major player in ethanol production, as many industries around the world are seeking to transition from 100% petroleum to using a mix of petroleum and biofuels, before eventually going 100% biofuel. With wheat shortages in the west and the middle east, Russia would be able to become the major player in ethanol production since ethanol is produced from wheat and corn, which would be in surplus amounts in Russia as a result of halting their export. This prospect

could coincide with a spectacular Ruble recovery, should Russia decide to sell ethanol in exchange for rubles and at the same time undercut US corn production by refusing to export nitrogen fertilizer. This would in effect stifle US ethanol production because without adequate fertilizer, the west would not have the surplus corn to produce greater amounts of ethanol. In this scenario, much of the corn would have to be designated for human consumption. As a result of the competition being eroded in the ethanol market, the rising Ruble would not undermine the competitive viability of Russia's export of ethanol fuels, should those fuels be sold for Rubles. The extra wheat and corn could also be used as a bargaining chip in places like the middle east and Africa, whom will insist on resuming grain imports from Russia. In this manner, Russia could seek out ospolitik-type agreements in which Russia would attempt to normalize relations with other nations by being granted some media influence in exchange for grain shipments or fertilizer. This would be for the sake of controlling how Russia is viewed as a nation within other countries. This would also give Russia more influence in the middle east in terms of being able to mediate peace between warring nations, despite Russia belonging to a consortium of Shiite nations like Syria, and Iran.

A growing dependency on Russia's production of oil, gas, and ethanol blends would bring the west back into Russia's sphere of influence, should urgency about carbon emissions continue to grow worldwide. This would also coincide with a greater global demand for Rubles, which would allow Russia to stimulate their economy by safely increasing the amount of rubles circulating within their financial system.

China's financial ties and trading relationship with the United States since 1979, when China joined the World Trade Organization, has been characterized by unfair trading practices in which China would impose much higher tariffs on US goods coming into China than those imposed by the US on Chinese goods coming into the US. Prior to 2018, China's tariffs on US goods were roughly 8%, while US tariffs on Chinese goods were 3%. Many trade analysts felt this arrangement to be unfair. An ensuing trade war between China and the US led to both countries imposing tariffs on the others' exports at

around 19-20% circa 2021. China, throughout its economic relationship with the US, also maintained an approach of orchestrating businesses partnerships with American investors in which the majority of the company would be owned by the Chinese. It was through these ventures that Chinese investors would insist on the transfer of US intellectual property, which ultimately allowed China to replicate what the US produced and thus go from being a trading partner to a direct competitor in that particular market. This undermined the possibility of the joint venture expanding, but provided the Chinese economy with profitable opportunities. When this was achieved, China would usually remove trade barriers on the specific good, which often yielded China a favorable status among the global economic world. This was often followed by currency devaluation, which gave China's now growing export industry an advantage over US export industry, and kept the cost of labor and price of Chinese goods cheaper and more likely to be consumed by the international market. China's joint ventures with foreign investors were set up with a VIE structure, which kept foreign investors from owning any of the company's assets, but allowed the foreign investors to reap profits or losses—via contractual agreements between the VIE(offshore shell company) and the Chinese company, which were not legally binding in China. This often tricked American investors into thinking that they owned an actual stake in the Chinese company, without seeing how China was guaranteed to reap most of the benefit. The Chinese, if they wanted, could then sabotage the company by restricting it from being transparent with their audits, which would lead to the SEC delisting the company, and thus causing investors to lose millions, with those Chinese investors who set up the VIE being able to keep much of the foreign investment.

China has also orchestrated agreements with nations in central Africa, such as the Democratic Republic of Congo (DRC), in which China would agree to build roads, schools, and hospitals there in exchange for Chinese companies being allowed to mine mineral resources like cobalt and copper. Cobalt is one of the main components of lithium ion batteries which are used in electric vehicles and also in critical military equipment such as submarines, surface warships, jet fighters, surveillance aircraft, intelligence,

surveillance, and reconnaissance systems, satellites, etc. Without cobalt, batteries would not have the self-cooling component that mitigates the chances of overheating and fires. And without an adequate supply chain of batteries, much of the nations' climate change efforts and more noteworthy their defense capabilities would be severely compromised. Because the Congo is sitting on 70% of the world's cobalt supply, the country has become a top attraction among nations looking to make the transition to electric vehicles. However, China has met criticism from the DRC president, Felix Tshisekedi, whom in 2021 had called for a review of the contract concerning the multi billion dollar cobalt-for-infrastructure project originally established between China and the DRC in 2008. Thus far much of the funds have been more heavily prioritized to the mining projects, as opposed to the job creation/infrastructure projects that China agreed to help develop. The DRC has since kicked out or asked a number of Chinese-owned mining companies in the Congo to leave, believing that they have cheated the Congo out of money owed to them from the agreement to develop infrastructure in the DRC in exchange for mining cobalt, and also disregarded the environmental regulations of the DRC. Under the original agreement established in 2008, the DRC was to essentially barter its cobalt and copper minerals in exchange for China developing 9 billions dollars worth of infrastructure, which the DRC would agree to pay back at 0% interest rate. Over the years under pressure from the International Monetary Fund, whom is helping the Congo with its debt woes, China agreed to reduce the loan to 6 billion. China also canceled a small portion of the loan during the 2020 pandemic to help the DRC deal with the economic fallback from the COVID-19 crisis. Just as Saudi Arabia is the primary focus of energy production regarding oil, the Congo is the primary focus of production regarding electric power, as cobalt is the most critical element in battery manufacturing.

In March of 2022, Saudi Arabia was considering selling its oil to the Chinese in exchange for Chinese Yuan instead of US Dollars. The consideration led to a brief spike in the value of the yuan. However, without a guarantee of military support from China, specifically in regards to the threat of Iran over Yemen, Saudi Arabia is unlikely to ratify such an oil deal with China. China's propensity for unfair

dealings could also deter Saudi Arabia from ever seeking out security guarantees from China. All the while, Chinese mining companies being met with suspicion from the DRC would allow Russia to step in and possibly corner the cobalt market, which would give Russia a long term strategic advantage. Russia has forayed into central Africa in the hopes of securing mining contracts. One example is Russia's relations with the Central African Republic (CAR). In recent years, the Central African Republic(CAR) has been embroiled in civil unrest stemming from 2013 when President François Bozizé was overthrown. However, in 2016, Faustin-Archange Touadéra was elected President of the CAR, but has met consistent opposition from rebel groups situated in the country. Both Russia and France have sent troops to aid Touadera's government, but the CAR has found the Russian aid to be more successful in training CAR fighters to defend the government against the rebel militias. The deal established between Russia and the CAR was that in exchange for military support and training from Russia, the CAR would allow Russia to access the CAR's deposits of diamonds, gold and uranium. If Russia orchestrates a similar deal with the Democratic Republic of the Congo(DRC), Russia will attain access to 70% of the world's cobalt reserves, which would provide Russia considerable influence over China's battery manufacturing market and also the defense capabilities of most nations. China relies on the mineral cobalt to manufacture lithium ion batteries, while US defense relies on China's export of those batteries. Russia's invasion of Ukraine gives Russia access to eastern Ukraine's 500,000 tons of lithium oxide, which under the scenario that Russia secure a cobalt deal with the DRC, would allow Russia to usurp China as the lead supplier of lithium ion batteries. Combine this with the aforementioned possibility of Russia gaining control of the ethanol market by withholding fertilizer from the US, Russia thus becomes the global leader and supplier of the critical climate control resources: electric and bio-fuels. Such a prospect can be used to the advantage of the DRC. The Democratic Republic of Congo's president Felix Tshisekedi could begin a plan to integrate Russia in tandem with the already existing Chinese mining companies in the Congo and usher in a phase of Russian mining companies being allowed access to increasingly more of the Congo's

cobalt reserves…. in a deal that would provide the DRC with military aid from Russia. A start would be expelling from the Congo the Chinese mining company "China Molybdenum", whom the DRC has already suspended from operating one of the world's largest cobalt mining sites, the Tenke Fungurume copper and cobalt mine. China Molybdenum was cited by the Congolese government for safety violations, not reporting cobalt and copper extraction totals, and also withholding royalties owed to the DRC from the mineral acquisitions. If the DRC expels the Chinese company and nationalizes the cobalt mine, they can offer the Tenke Fungurume copper and cobalt mining site to the Russians. Such a mining deal for Russia, however, would have to come with a major stipulation. The stipulation should be that Russia allow the President of the DRC, President Felix Tshisekedi, to take a lead role in mediating ceasefire agreements between Russia and Ukraine, with the eventual goal of persuading Russia to withdraw its troops from Ukraine. In exchange for being allowed serve as a major mediator of peace between Russia and Ukraine, the Congolese President would set up a deal that would allow Russia to access the Congo's cobalt mineral reserves in exchange for military support. In that scenario, with Russian and Chinese mining companies now extracting cobalt in the DRC, the DRC can pass a bill that would allow them to nationalize or hand over mining sites of companies engaged in unscrupulous practices. For example if a Chinese mining firm is committing various violations and abuses, the DRC can remove the company as an operator of the mining site and replace it with a Russian company. This infuses a competitive element in the mining industry within the DRC and should help deter abuses, cheating, and violations by foreign mining companies. This would also help ensure that the DRC gets its fair share of royalty payments and infrastructure development. Due to IMF aid, which the DRC is currently receiving, the DRC should be careful establishing mining deals with the Russians, as the IMF has already suspended the ceremonial role held by Russian representative, Aleksei Mozhin, over the Russian invasion of Ukraine. However, the fact that this deal with Russia is predicated on Congolese mediation in helping to end the war in Ukraine, the IMF might not see this as a major issue affecting their loan agreement with the DRC.

Russia and China controlling the cobalt market would allow such nations to establish deterrence against aggressive and provocational western nations looking to interfere with domestic stability in eastern countries. In recent years, due to China's role in producing lithium ion batteries which the US depends on for its electric and defense capabilities, the US by default has had to maintain a careful approach in dealing with contentious issues regarding China's geopolitical agenda. It was either that or face the possibility of battery shortage if China would decide to withhold its battery exports from the US in retaliation for any US hostility towards China. Russia on the other hand had only been able to apply such leverage against Germany, whom had been reliant on Russian oil, gas, and wheat exports. And for this reason, Germany had become more than compelled to apply conciliatory measures towards Russia in order to avoid upsetting this delicate arrangement, which if compromised would have systemic implications for the German economy. These dependencies are without question a deterrent to the aggressive militaristic and provocational approach since nations would prefer to maintain an accordance, resulting in a stable economy than to upset the balance by risking a war and an economic crisis. Under a cobalt deal between Russia, China, and the DRC, Russia would now be able to create a dependency among western nations that are reliant on lithium ion battery exports from the east. The threat of Russia withholding cobalt exports to China in order to deter western hostility, would result in a decline in the amount of batteries that China can produce and export to the west. This would thus affect western nations, and also compel western nations to avoid cultivating hostilities with Russia at the risk of losing electric energy supplies. The importance of this cannot be understated because even in a future where the current geopolitical crisis between Russia and Ukraine eventually comes to an end, the west will still have its eye on the land that Russia sits upon, and will also seek to justify some form of incursion to try and separate Rus people from Rus lands in order to acquire the vast variety of resources and mineral deposits situated there. Lack of sufficient mineral resources in western Europe and the United States for the sake of maintaining their industrial efforts has been a factor leading to their need to interfere in mid-east, Latin

American, African, and Russian geopolitics. Before Saudi Arabia was a proven oil-rich land, Russia had been the primary reservoir of oil and grain. Poland, France, Germany, Sweden have all historically either tried to invade or justify the military conquest of Russia for this very reason. Even when conflict broke out between western nations like England and France in 1812, Russia's export of grain to England during that time had become a flashpoint precipitating a French invasion of Russia. Germany's military incursions east towards Russia during World War I and II were largely motivated by acquiring access to Ukraine's grain production and Russia's oil, which Germany needed for sustaining its logistics, artillery and other military hardware. Germany could not produce enough oil or grain from their own land.

The DRC government not only needs training for its defense, but also arms and infrastructure since much of central Africa is marred by violence, corruption, and in-fighting. There are a number of rebel groups in the Congo that have been able to acquire weapons via the illegals arms export industry from various parts of the world. However, some of the rebels have sought amnesty from the DRC and want to be integrated into its government forces. Germany should seek to establish an arms deal that coincides with the Congo's efforts to do just that—provide amnesty and integration of rebel groups into the DRC. However, Germany should buy the arms from Ukraine before shipping them to the DRC, which would help regulate sporadic arms dealing in the Congo and allow Ukraine to dominate the market and recover their economy. The training of DRC defense forces, however, should be conducted by Russian personnel. In exchange for an amnesty for arms deal between Germany and the Congo—which entails that if the DRC provides amnesty to rebel groups, Germany would supply arms to the DRC government via Ukraine—Germany would be allowed to build a dam in the Congo for green hydrogen development. Germany has been trying to transition to electric energy production using hydrogen, with a goal of mass producing hydrogen fuel cells for electric vehicles. Unlike lithium ion batteries, hydrogen fuel cells do not rely on cobalt. They are developed with platinum. Research, however, has found that cobalt can substitute platinum in hydrogen fuel cells and also lower the cost of production.

Should Germany seek an option to use cobalt instead of platinum, they could simply purchase the cobalt from either the Chinese or Russian mining companies operating in the Congo. Furthermore, should Germany establish a deal with Saudi Arabia where Germany would agree to uphold Saudi Arabia's security in exchange for oil being traded in Euros, The DRC should set aside a volunteer group for the German army via a Congolese military base in Germany. This creates a supply chain of dependency where the DRC is reliant on training from Russia in exchange for cobalt mining contracts, arms from Germany who buys them from Ukrainian oligarchs which will help Ukraine's economy recover, and infrastructure from the Chinese in exchange for cobalt mining contracts. This leaves us with a new consortium of nations for world peace and stability: the Democratic Republic of the Congo, Russia, China, Ukraine, Germany, and Saudi Arabia.

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